

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2555	228/144,152,173.6,5.7,17.5,112.1,2.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/27 14:32
S1	38983	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agit\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/15 17:59
S2	964	S1 and (plate or sheet or layer or film) same (hollow or empty) same (cylinder or tube or tubes or tubular or tubing or pipe or pipes or piping)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/15 18:01
S3	228	S2 and (protrusions or fingers or jut or bulge)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/15 18:05
S4	3355	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agit\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/15 18:20

S5	33	S4 and (plate or sheet or layer or film) same (hollow or empty) same (cylinder or tube or tubes or tubular or tubing or pipe or pipes or piping)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/15 18:22
S6	185	148/521.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/16 08:59
S7	3355	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/16 09:05
S8	107	S7 same (plate or sheet or layer or film) same (cylinder or tube or tubes or tubular or tubing or pipe or pipes or piping)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/16 09:05
S9	128	resistance near5 weld\$4 same (friction or frictional) near5 (bond\$5 or weld\$5 or join or joins or joined or joining or processing) same (common or known or obvious)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/16 09:34

S10	96	resistance near5 (bond\$5 or weld\$5 or join or joins or joined or joining or processing) with (friction or frictional) near5 (bond\$5 or weld\$5 or join or joins or joined or joining or processing) same (common or known or obvious)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/16 09:34
S11	41	resistance near5 (bond\$5 or weld\$5 or join or joins or joined or joining or processing) with (friction or frictional) near5 (bond\$5 or weld\$5 or join or joins or joined or joining or processing) with (common or known or obvious)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/16 09:35
S12	11	"4,949,895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/29 15:37
S13	276	friction near5 stir near5 weld\$4 with (advantage or advantages or advantageous)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/29 15:40
S14	195	friction near5 stir near5 weld\$4 near5 (advantage or advantages or advantageous)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/29 15:41

S15	185	friction near2 stir near2 weld\$4 near5 (advantage or advantages or advantageous)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/29 15:41
S16	43	friction near2 stir near2 weld\$4 with (advantage or advantages or advantageous) with (wear or strength)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/07/29 15:46
S17	6	("4949895"   "5794835"   "6328261").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 13:14
S18	39463	(run near2 (on or off)) same ((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond\$5 or weld\$5 or join or joins or joined or joining or processing))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 13:46
S19	39495	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond\$5 or weld\$5 or join or joins or joined or joining or processing))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 13:51

S20	3437	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing)) same (run near (on or off))	US-PGPUB; USPAT; USOCR; FFRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 13:51
S21	3429	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing)) same (run near (on or off)) and (run near (on or off)) same (tab or tabs or finger or fingers or projection or protrusion or extension)	US-PGPUB; USPAT; USOCR; FFRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:06
S22	3429	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing)) same (run near (on or off)) and (run near (on or off)) with (tab or tabs or finger or fingers or projection or protrusion or extension)	US-PGPUB; USPAT; USOCR; FFRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:11
S23	3429	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing)) same (run near (on or off)) and (run near (on or off)) with (tab or tabs or finger or fingers or projection or protrusion or extension) and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular)	US-PGPUB; USPAT; USOCR; FFRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:12

S24	3429	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agit\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing)) same (run near (on or off)) and (run near (on or off)) with (tab or tabs or finger or fingers or projection or protrusion or extension) and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular) and (plate or sheet or film or layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:13
S25	3429	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agit\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing)) same (run near (on or off)) and (run near (on or off)) with (tab or tabs or finger or fingers or projection or protrusion or extension) and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular) and (plate or sheet or film or layer) and "228".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:14
S26	4	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agit\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing))) same (run near (on or off)) and (run near (on or off)) with (tab or tabs or finger or fingers or projection or protrusion or extension) and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular) and (plate or sheet or film or layer) and "228".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:18

S27	20	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond\$5 or weld\$5 or join or joins or joined or joining or processing))) same (run near (on or off))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:20
S28	93	("2219907"   "3228267"   "3550229"   "4103138"   "5460317").PN. OR ("5794835").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/10/01 14:28
S29	82	S28 and S19	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:29
S30	5	S29 and (run near (on or off))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:38
S31	6	(US-5794835-\$ or US-7270257-\$ or US-7225968-\$ or US-6352193-\$ or US-6325273-\$ or US-5460317-\$). did.	USPAT	ADJ	ON	2008/10/01 14:46
S32	6	S31 and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular or hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:46
S33	6	S31 and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular or hollow) and (run near(on or off))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:47

S34	6	S31 and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular or hollow) and (run near (on or off))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:47
S35	39495	((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond \$5 or weld\$5 or join or joins or joined or joining or processing)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:56
S36	21909	S35 and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular or hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:57
S37	10003	S35 and (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular or hollow) same (plate or sheet or film or layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:57
S38	9797	S35 same (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular or hollow)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:58



S39	3074	S35 same (cylinder or cylindrical or tube or tubes or tubing or pipes or piping or pipe or tubular or hollow) same (plate or sheet or film or layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:58
S40	404	S39 and "228".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:59
S41	2	S40 and S31	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 14:59
S42	2494	S35 same (cylinder or tube or tubes or tubing or pipes or piping or pipe or tubular or hollow) same (plate or sheet or film or layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 15:00
S43	323	S42 and "228".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 15:00
S44	2	S43 and tanaka.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/01 15:13

S45	1	"10537180"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 10:23
S46	0	("2004/0041005").URPN.	USPAT	ADJ	ON	2008/10/02 10:53
S47	0	("2006/0081683").URPN.	USPAT	ADJ	ON	2008/10/02 10:54
S48	6	"2001088504"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 11:00
S49	4	"10305373"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 11:01
S50	398	seam with (((friction or frictional\$5) near4 (stir or stirs or stirred or stirring or churn\$5 or agitat\$5) with (bond\$5 or weld\$5 or join or joins or joined or joining or processing)) or ((friction or frictional\$5) near7 (bond\$5 or weld\$5 or join or joins or joined or joining or processing)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 11:06
S51	112	S50 same (tube or tubes or tubing or tubular or pipe or pipes or piping or cylinder or hollow or roll)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 11:07

S52	4	"03254359"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 11:25
S53	4	"9933594"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 14:52
S54	1493	228/144,152,173.6,5.7,17.5.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 15:44
S55	551	S54 and (protrusion or protuberance or extension or projection or thicken\$4 or end near5 (portion or region or area or section))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/02 15:46
S56	7	("2148714").URPN.	USPAT	ADJ	ON	2008/10/02 16:16
S57	4	(US-20020020164-\$).did. or (US-5794835-\$).did. or (US-2148714-\$).did. or (WO-9933594-\$).did.	US-PGPUB; USPAT; USOCR; EPO	ADJ	ON	2008/10/06 10:55
S58	2	S57 and (thickness or thicknesses)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/06 10:55

S59	1031	228/112.1,2.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/06 14:01
S60	1	(US-5794835-\$).did.	USPAT	ADJ	ON	2009/02/27 13:36
S61	1	S60 and (grip\$4 or hold\$4 or grab\$4 or secur\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/27 13:36

2/27/2009 2:51:13 PM

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